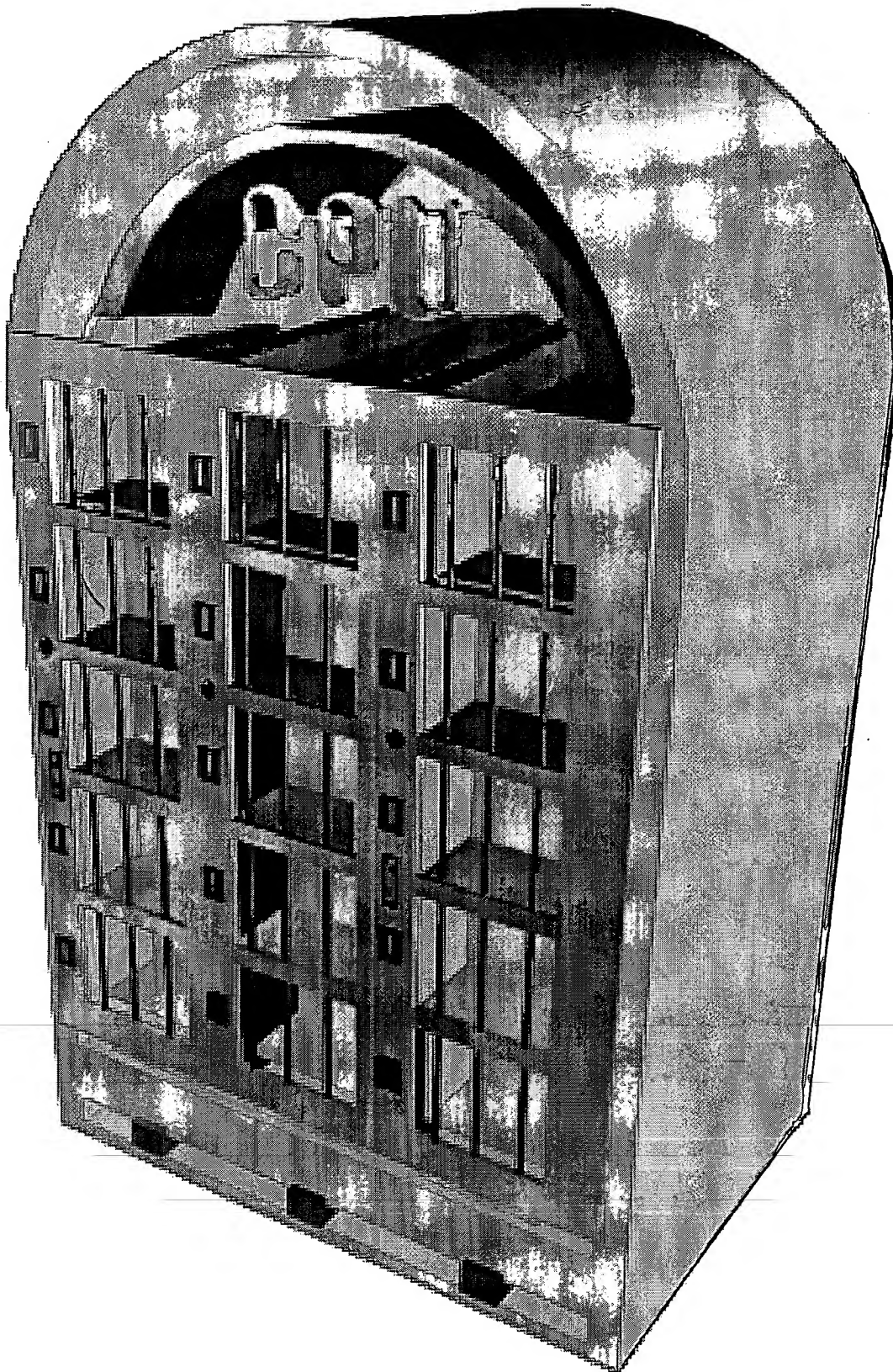


Steve Johnson
File Date 6-12-95
File # 08-497-997

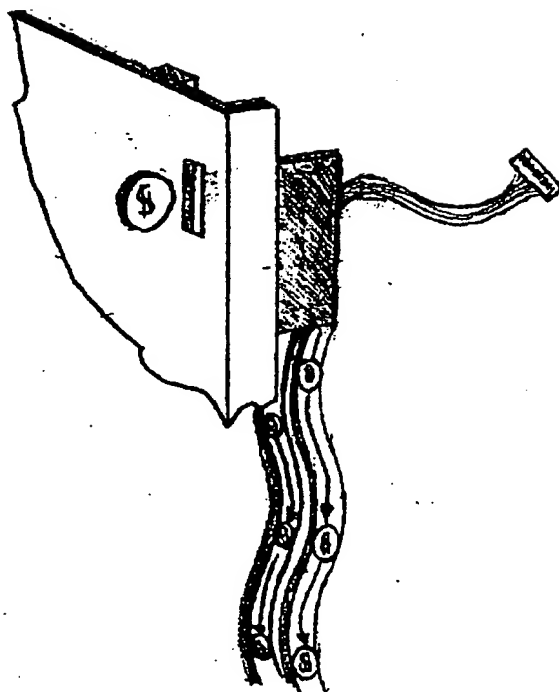
401



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Blue Johnson
File Date 6-12-95
File # 08-497,997

FIG 11

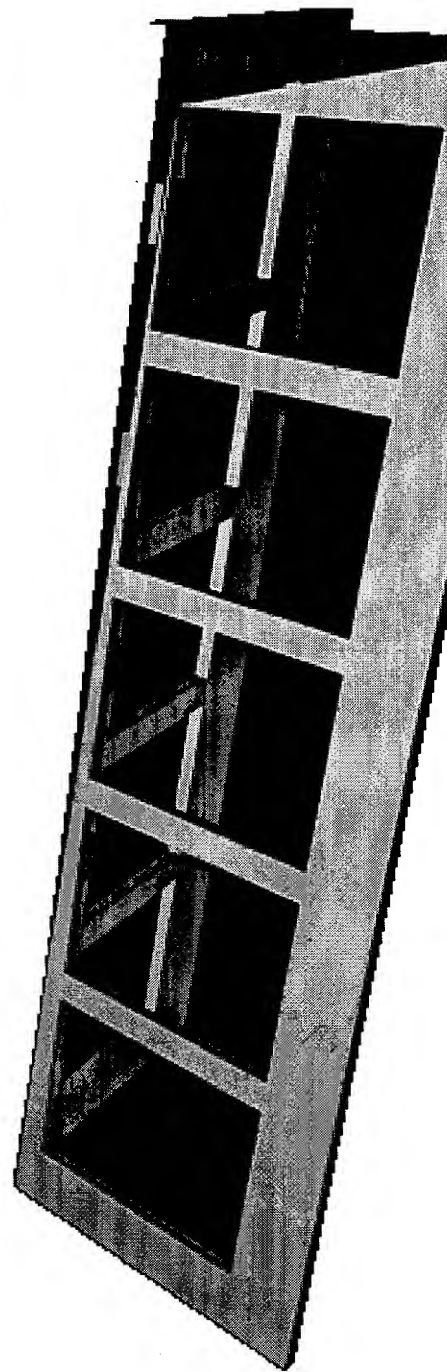
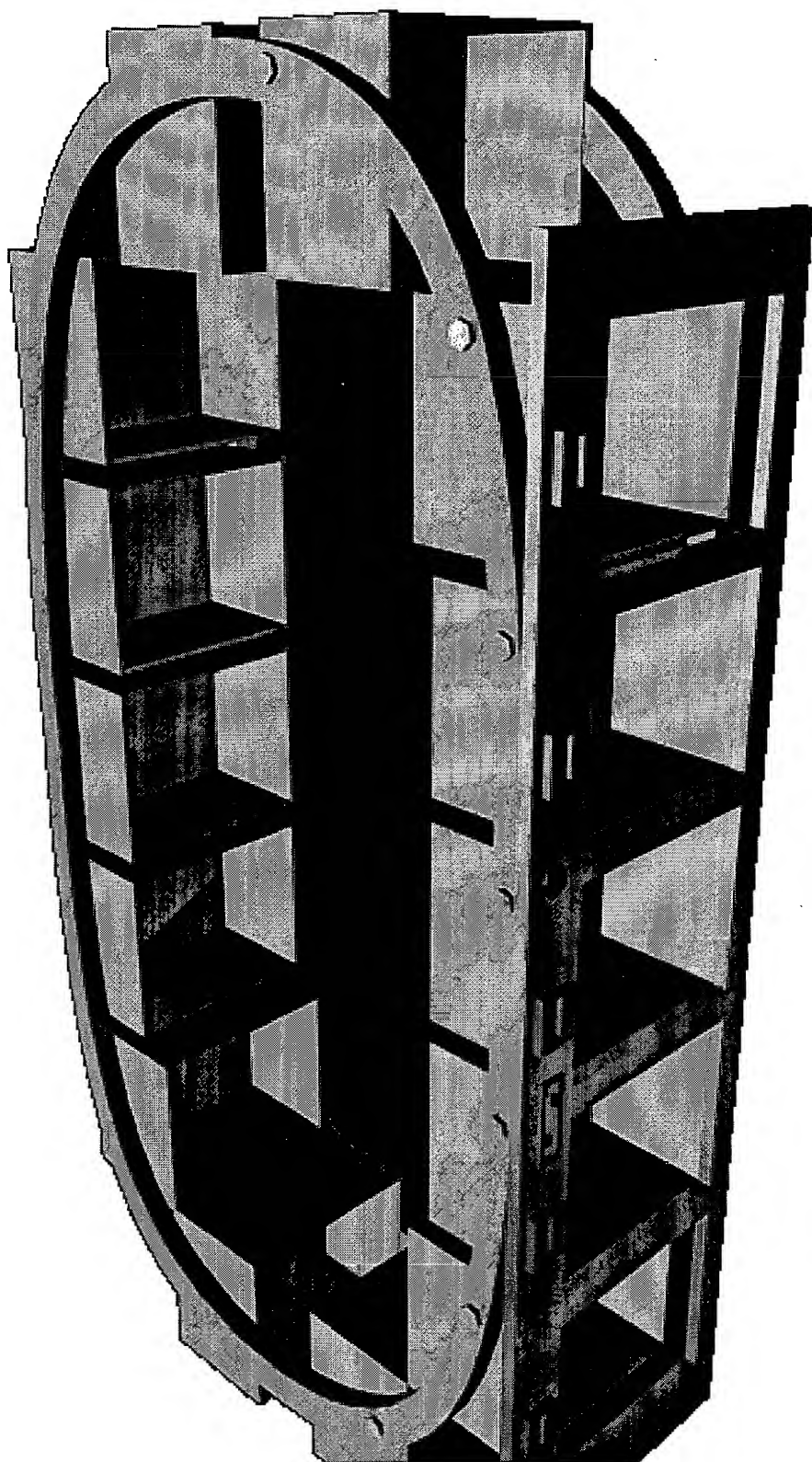


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File Date 6-12-45
File # 08-497-997

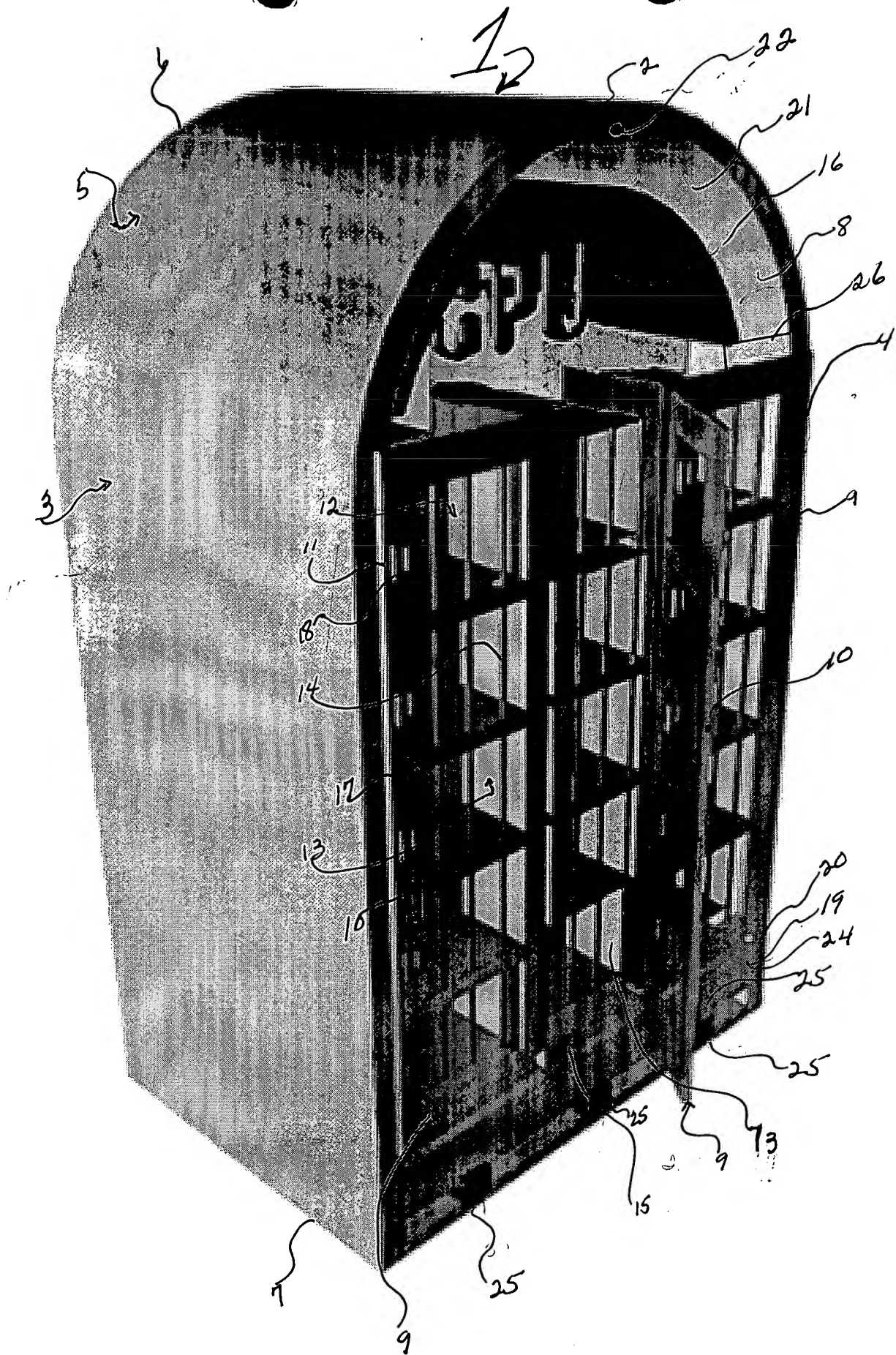
Fig 111

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Whitehurst
File # 6-12-95
File # 08-497-997

FIG IV

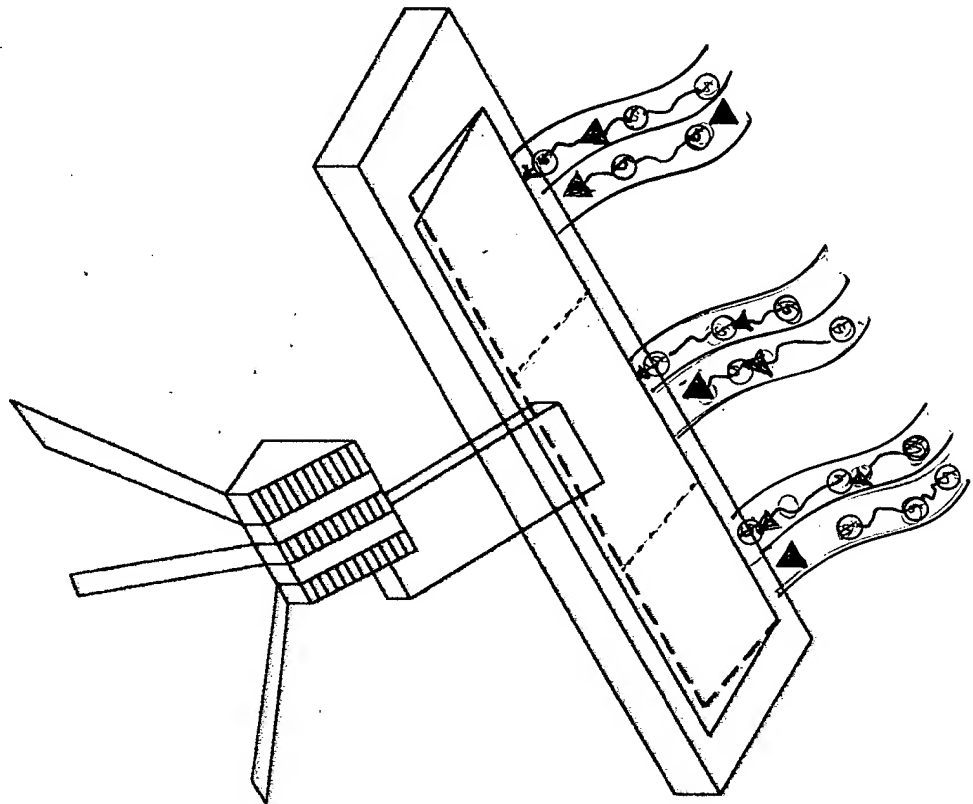


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Alfred Johnson
File Date 6-12-95
File #08-497,997

Best Available Copy

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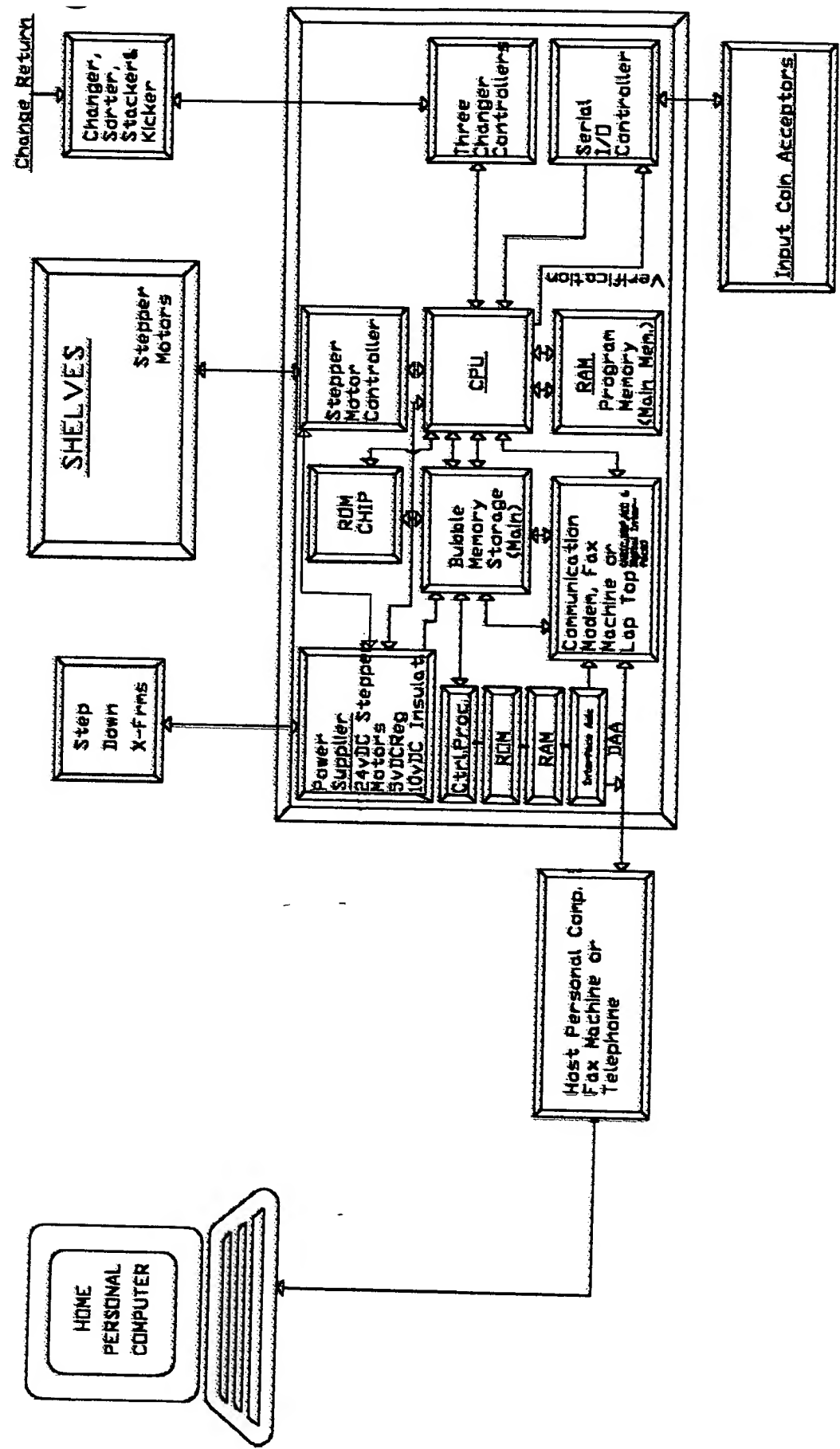


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Steve LaJohnson
 File # 08-497,997
 File Date 6-12-95

466230 "T20T820"

FIG VI

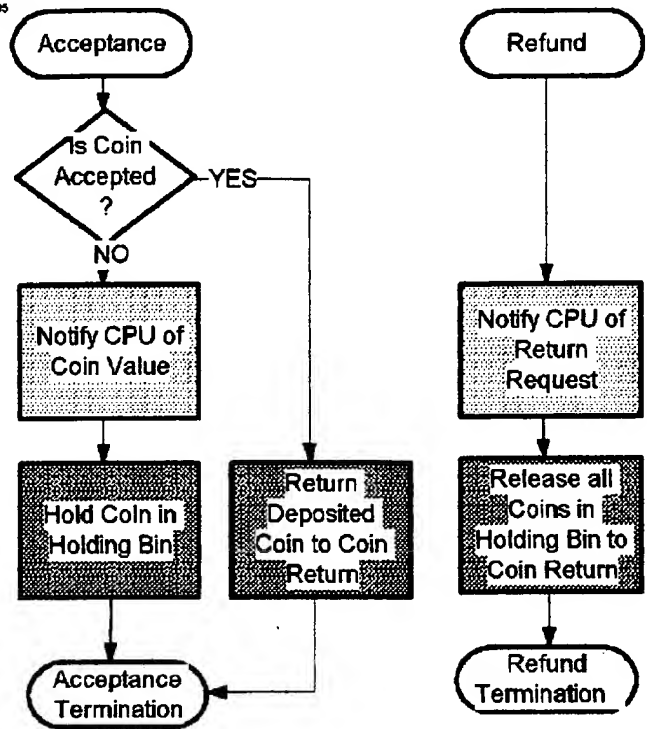


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 File #08-497-997
 File #08-497-997

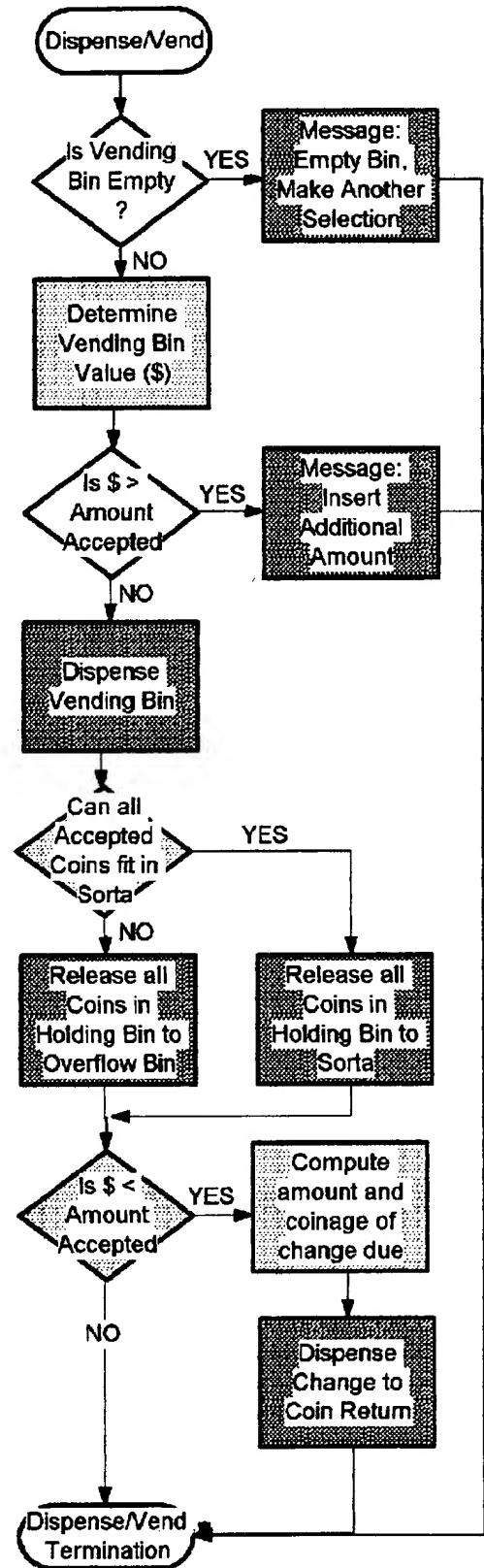
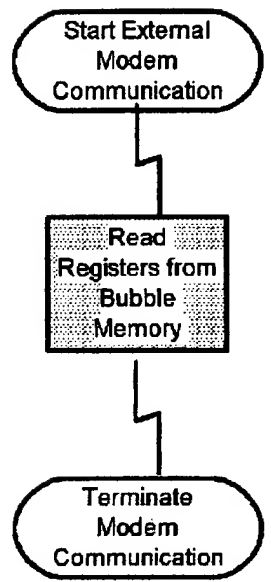
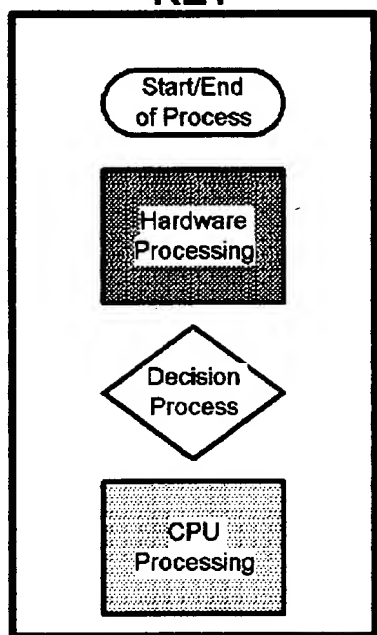
FIG VII

ALICE JOHNSON/08-497,997
 JUNE 12, 1995

FIG VII

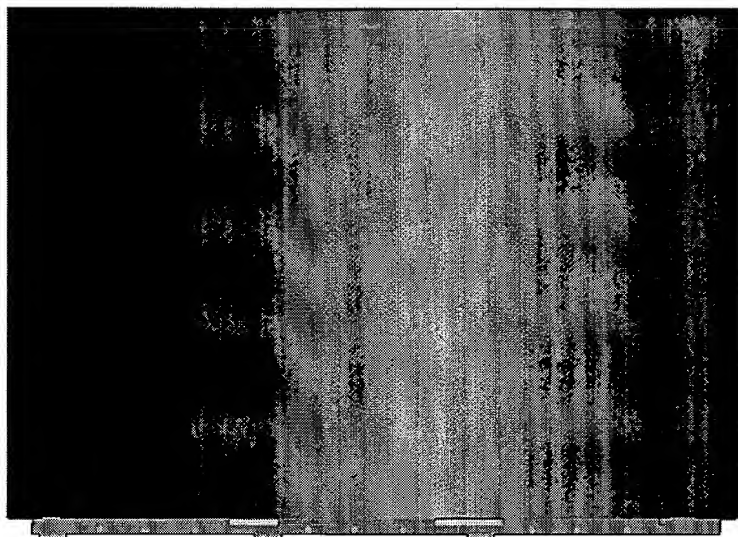


KEY



Therese A. Johnson
File Date June 12, 1995
File # 08 497, 997

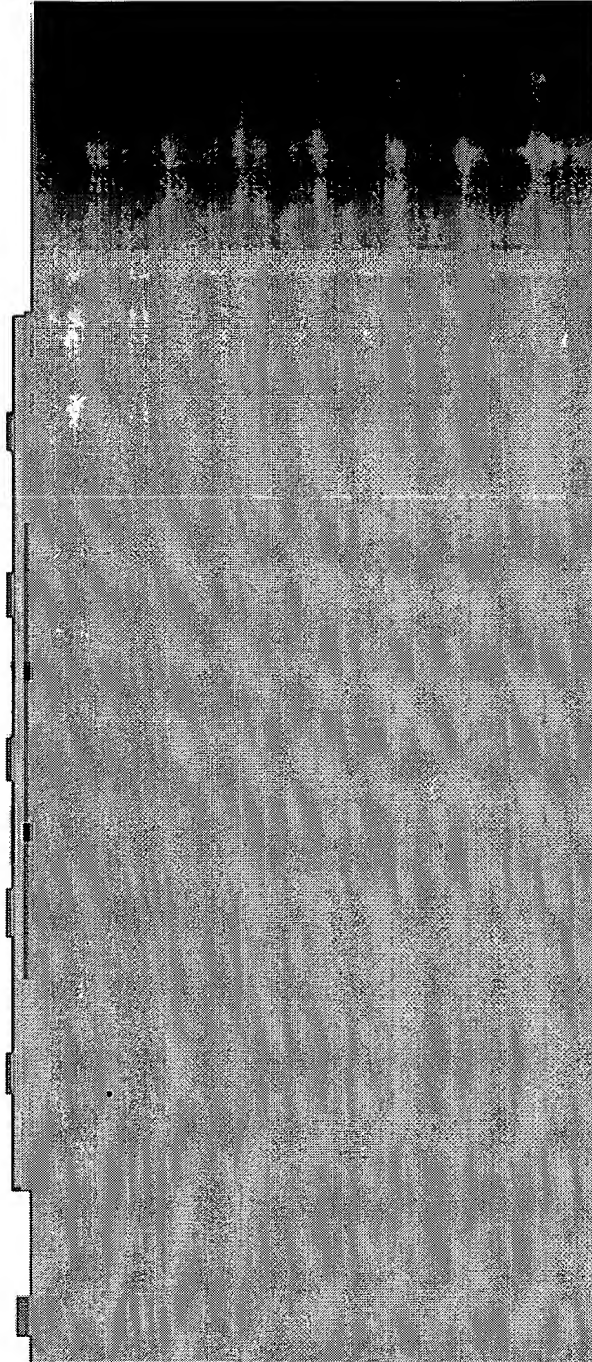
Fig VIII



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Oliver Johnson
File Date 6-12-95
File # 08-497-997

Fig IX



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CPU Processing

Process 1 - Coin Accepted

Add 1 to Count of coins for the value of the coin accepted

(i.e. if the second nickel was entered, the count of nickels would be 2)

Compute the total value of all coins accepted

(Add value of coin accepted to acceptors' accumulated value)

Process 2 - Refund Requested

Zero all Counts of coins for the specific acceptor

Zero acceptors' accumulated value (total value of all coins accepted is reset to zero)

Process 3 - Accepted Coins to the Overflow Bin

By Coin type

Add the number of coins accepted to the number of coins in the coin bin.

Compute the Value of coins in the Overflow Bin by multiplying Coin Value times Coin Count

Compute the total value of all coins in the Overflow Bin

(Sum the value of all coins by coin type)

Process 4 - Accepted Coins to the Changer (Sorta)

By Coin type

Add the number of coins accepted to the number of coins in the coin sort.

Compute the Value of coins in the sorta by multiplying Coin Value times Coin Count.

Compute the total value of all coins in the Sorta

(Sum the value of all coins by coin type)

Process 5 - Dispense Change

Compute the amount of change to be dispensed by subtracting the value of the product from the amount accepted

Use the following table to determine the count of coins, by type, to be returned to the coin return:

Change	Nickels	Dimes	Quarters
\$ 0.05	1	0	0
\$ 0.10	0	1	0
\$ 0.15	1	1	0
\$ 0.20	0	2	0
\$ 0.25	0	0	1
\$ 0.30	1	0	1
\$ 0.35	0	1	1
\$ 0.40	1	1	1
\$ 0.45	0	2	1
\$ 0.50	0	0	2
\$ 0.55	1	0	2
\$ 0.60	0	1	2
\$ 0.65	1	1	2
\$ 0.70	0	2	2
\$ 0.75	0	0	3
\$ 0.80	1	0	3
\$ 0.85	0	1	3
\$ 0.90	1	1	3
\$ 0.95	0	2	3

The Acceptance Process

```

If the coin is accepted
then    Notify the CPU as to type of coin (value) and Acceptor Id (CPU Process 1)
        Save the coin in a holding bin
else (rejected)
        Route coin to the Coin Return

```

The Refund Process

Notify the CPU that a return was requested (CPU Process 2)
Release all coins in the Holding Bin (for the acceptor) to the Coin Return.

Dispense/Vend Process

```

If Vending Bin is Empty,
then    no transaction takes place
        Message to operator, "Empty Bin, Make Another Selection"
        Terminate Dispense/Vend Process

```

```

If Vending Bin is Full (default if processing logic passes to this point)
Determine value of Vending Bin (y) Indicator (as each bin can vary in price)
Determine amount accepted in Holding Bin (x) Indicator
If Vending Bin (y) Indicator is greater than Holding Bin (x) Indicator
then      Message to Operator "Insert Additional Amount"
          Terminate Dispense/Vend Process

```

Dispense Vending Bin

If "Sorta/Changer Full" Indicator

then Release all Coins in Holding Bin (x) to Overflow Bin
notify the CPU that a sale was completed (CPU Process 3)

```
else    Release all Coins in Holding Bin (x) to Sorta/Changer
        notify the CPU that a sale was completed (CPU Process 4)
```

If Vending Bin (y) Indicator is less than Holding Bin (x) Indicator [change due]

then Compute amount and coinage of change due (CPU Process 5)

Dispense Change to the Coin Return (x)

Terminate Dispense/Vend Process

```

else      Terminate Dispense/Vend Process

```

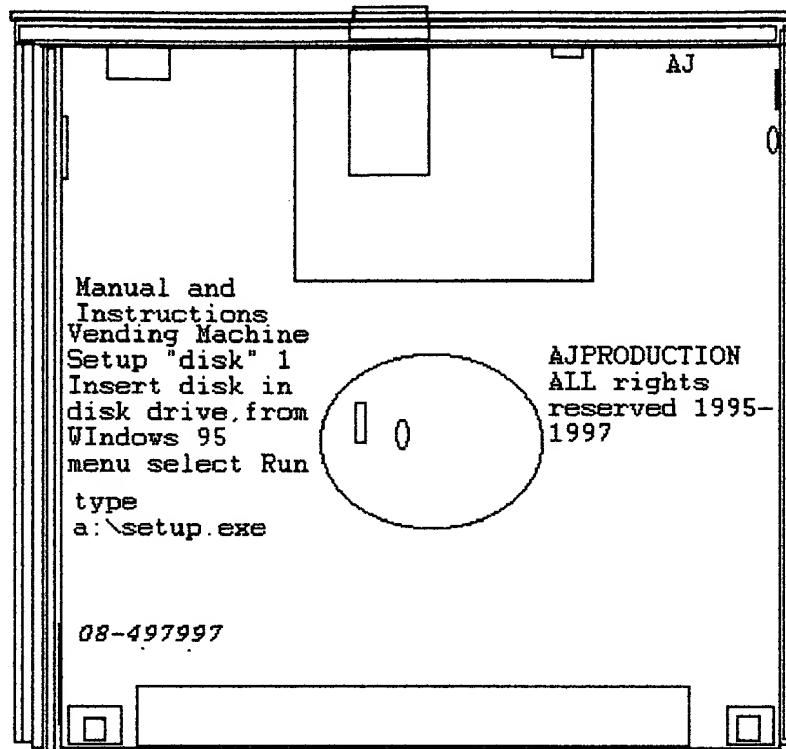


FIG X1

08-497,997

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**SCANDVEND
FOR DUMMIES
MESSAGE PRINT SCREEN**

SCANSELF	SERVICALL	SCANTILL	SCANBNK	ENTER CANCEL SAVE PRT-REPORT ON OFF
SCANTRAK	CKMOTOR	SCANDOR1	SCANCHAG	
SCANSHEL	FINDMODEM	SCANDOR2	CKARM	
00000000	00000000	00000000	00000000	

0001	0010	0011
0100	0101	0110
0111	1000	1001
*	1010	#

FIG X111

Glee Johnson
File Date 6-12-95
File #08-497,997

FIG XIV

Hardware Considerations and Terms

Coin Acceptor

Accepts coins by verifying their value and authenticity. Those coins rejected are routed immediately to the coin return. Coins accepted are routed to the Holding Bin pending refund or vending.

Holding Bin

Area in which all coins are collected for a given acceptor. Coins are released upon request for refund or the vending of the product.

Coin Return

Area which un-accepted coins, full refund (canceled selection) and change is returned to the customer.

Sorta / Changer

Unit that sorts coins to be used in preparing change upon overpayment into "tubes" by coin type. Unit also selects the proper number of coins to be dispensed in the process of making change.

Overflow Bin

Container of all coins from purchases which would not "fit" into the Sorta / Changer at the time of sale.

Assumptions:

All processing is described as if it were a single unit. The only shared component that needs to maintain which Acceptor / Vending Unit is being processed is the Sorta / Changer. This is to insure that the change being delivered is "routed" to the appropriate Coin Return.

CPU/Software Considerations and Terms

Accumulators

Counter in memory which counts the number of items. For each coin type being monitored (nickels, dimes, and quarters) there are three unique accumulators. For each item being tracked there is one set of three accumulators. Items being tracked would include, but not limited to: Coins in Holding Bin 1, Coins in Holding Bin 2, Coins in Holding Bin 3, Maximum Coins in Sorta/Changer, Minimum Coins in Sorta/Changer, Current Coins in Sorta/Changer, Current Coins in Overflow Bin, etc.

Indicators

Indicators are switches in memory that indicate specific conditions. These switch settings are checked after every transaction is processed through the CPU.

- The "No Change" indicator is set if any accumulator in Current Coins in Sorta/Changer is less than the corresponding accumulator in Minimum Coins in Sorta/Changer.
- The "Sorta/Changer Full" Indicator is set if any accumulator in Current Coins in Sorta/Changer plus the corresponding accumulator in Coins in Holding Bin (x) is greater than or equal to the corresponding accumulator in Maximum Coins in Sorta/Changer.
- The "Value in Holding Bin (x)" contains the computed value of all coins accepted by the corresponding Coin Acceptor.
- The "Value of Vending Bin (y)" contains the predetermined value of the product to be dispensed from bin (y). This value is set by the operator, and may not be changed by the customer.

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Alice Johnson / #08-497,997
June 12, 1995

WINDOW MESSAGING

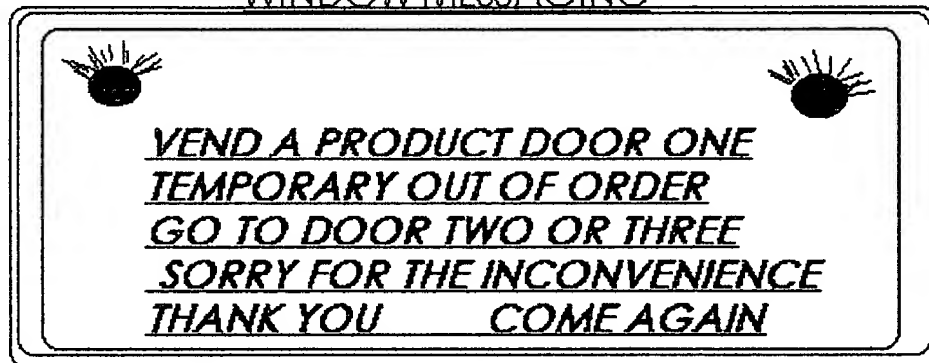


FIG XV

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